**IT Applications Unit 3, AOS 1, Online Communities**

**Chapter 2, Problem-solving Methodology, pgs, 60-80**

**Problem-solving Methodology: 4 Stages**

Analyse

Design

Development

Evaluate

**Case Study:**

**Indigenous Language Trust, (ILT)**

**Using the case study, ILT complete the following:**

**DESIGNING A WEBSITE SOLUTION, P 66**

1. **List the techniques that web developers can use to ensure their website is efficient?**

* Templates
* Cascading style sheets
* Common formats on every page
* Use of thumbnails and smaller images for faster upload

1. **List the techniques that web developers can use to ensure their website is effective?**

* Check appearance of webpage in different web browsers to see it the appearance changes
* When visitor has clicked on a link allow colour of the visited link to change
* Consistent layout throughout website
* Clearly displayed information on pages

**IDENTIFYING HOW A SOLUTION WILL FUNCTION**

**Taking into account the technical constraints a range of design tools can be used to show the functionality of the website. Elaborate on each of the following functional design tools:**

1. **IPO Charts**

An IPO chart (Input-Process-Output) is used to show how data is processed into useful information. It identifies what data is required for the solution (Input), what information the solution needs to produce (output) and the processing steps required to transform the data into information or the function of the solution.

1. **Flowcharts**

Flow charts can be used to indicate how a member of the online community might gain access to information or how the solution is produced. A flow chart uses symbols in a linear sequence to document each step.

1. **Layout diagrams**

A layout diagram or style sheet can show how a webpage will function.

1. **Website map**

A site map is a geographic representation of how the pages on the website will link up. It is commonly a hand drawn series of boxes that show connections between all the pages.

* 1. **What does information architecture refer to?**

Information architecture refers to the structure of the website and its navigation pathways and it is often communicated through a website map.

**NAVIGATION DESIGN**

1. **What considerations need to be taken into planning the navigation design?**

The navigation design needs to have a navigation bar and the navigation bar needs to have drop down boxes.

1. **What’s meant by making your website accessible?**

Your website needs to be accessible to everyone who opens it. Cross-platform software such as Flash and Java should be use to make sure applications work on all computers. Also alt tags should be used to make sure that disabled people can use the webpage.

1. **What is a style guide?**

A style guide will tell you exactly how to format communication for that organisation. Style guides show you how to layout a page and how to use a company logo so that all correspondence appears the same.

1. **List the conventions of file naming.**
   * Index page is first page eg. index.htm
   * Filenames short and meaningful
   * Limited to 16 characters

**IDENTIFYING HOW A SOLUTION WILL APPEAR USING DESIGN TOOLS, P 70**

**Elaborate on the following:**

1. **Mock-up diagram**

A mock up diagram is a sketch of the actual website that the designer is going to develop. It can be hand drawn or drawn in an illustrator. There are usually headings in place and spaces left for the text, colours and fonts are defined and there are general diagrams in place. The purpose of a mock up is to offer a clear idea of what the final layout will look like.

1. **Layout diagrams**

Layout diagrams provide a visual representation of how the final product will look like. Layout diagrams contain information such as where the text and images will be located.

1. **Storyboard designs**

A webpage storyboard is a tool used to design the features of each individual page. They are general screen designs and they describe section and links to each page. The features of a storyboard include:

* Client name
* Designer name
* Page number
* Background colour code
* Image file name and source
* Optimal screen dimensions
* Purpose and description
* List of required images and sizes
* List of the required link filenames
* Embedded objects such as movies or flash objects

**FORMATS AND CONVENTIONS, P 73**

**Elaborate on the following formats and conventions**

1. **Screen size**

It is important to remember that some screens are of smaller size and this may hinder the quality of the website when some users view it. The bottom of the index page should include the recommended screen size.

1. **Index or home page**

The index or home page should contain important information to users:

* Contact email address
* Date of last modification of the website
* The author or companies name and contact details

1. **Scrolling**

* Place most of the information and text in the single screen so the user doesn’t have to scroll down the page
* The users should not have to scroll more than two lengths of a single page, if so, the page should be divided up into two.
* Horizontal scrolling should be avoided

1. **Text**

* The alignment of text can be right, left or centred. The same alignment should be carried out down the whole page.
* Avoid using uppercase letters except for some headings. Paragraphs of uppercase text are hard to read.
* Full justification or fully aligned refers to the text being aligned along the left margin of a column and spaced so that the last letter in a word on each line is aligned with the right margin.

1. **Navigation**

* Avoid underlining words because this can cause confusion with hyperlinks
* Each webpage should have consistent navigation buttons.
* Each webpage should have a link back to the homepage.

1. **Font selection**

* Maintain the same font throughout the webpage.
* Headings may be a different font but it must be universal throughout the webpage
* Consistent use of fonts and sizes (usually between 9-12 points) is recommended

1. **Images and file size**

* The source of an image should always be defined.
* The image size should not exceed 300mb to allow for easy opening of the webpage.

1. **Style guides**

* Style guides provide instructions for website developers about where to use different type sizes and fonts, and whether these should be bold or italic. They also contain information on colours and patterns to be used in the background.
* Formats and conventions are defined in the style guide.

1. **With the ILT case study what formats and conventions have been chosen?**

* Colours: White background, black text and red and yellow headings.
* Screen size: 1024 X 768
* Text alignment: Left
* Navigation: Buttons on the left of screen under the heading